

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte CHRISTINE DUPUIS

Appeal 2007-1160¹
Application 09/663,183
Technology Center 1600

Decided: June 15, 2007

Before TONI R. SCHEINER, DONALD E. ADAMS, and RICHARD M. LEBOVITZ *Administrative Patent Judges*.

LEBOVITZ, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-33, 38-82, and 87-102. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF CASE

The claimed invention relates to compositions which are useful for styling hair (Specification 10-17) and which can also be applied to the skin,

¹ Heard May 17, 2007.

nails, and lips (Specification 15: 23-24). The composition comprises two different types of known polymers.

Claims 1-33, 38-82, and 87-102 are pending and rejected over the prior art (Br. 5). The Examiner relies on the following references as evidence of unpatentability:

Firstenberg	U.S. Pat. 5,297,566	Mar. 29, 1994
Blankenburg (English translation) ²	WO 99/04750	Feb. 4, 1999

Claims 1-33, 38-82, and 87-102 stand rejected under 35 U.S.C. § 103(a) as obvious over Blankenburg in view of Firstenberg (Answer 5). The claims stand or fall together because Appellant has not provided separate reasons for patentability of any individual claim.³ See 37 C.F.R. § 41.37(c)(1)(vii). We select claim 1 as representative. Claim 1 reads as follows:

1. A composition comprising:
 - (a) at least one silicone/acrylate copolymer; and
 - (b) at least one nonionic polymer comprising at least one vinyl lactam unit chosen from polyvinylpyrrolidone/vinyl acetate/vinyl propionate terpolymers,

wherein said at least one silicone/acrylate copolymer is derived from radical-mediated polymerization of:

- (i) at least one ethylenically unsaturated monomer (a); and

² Translated by Schreiber Translations, Inc.

³ The Brief contains a subheading identifying the dependent claims by numbers, but the reasons for their patentability were stated to be the same as for the independent claims (Br. 17-18). Consequently, we consider the dependent claims to stand or fall with the independent claims.

(ii) at least one silicone compound (b) comprising at least one oxyalkylene group.

DISCUSSION

Claim 1 is drawn to a composition comprising two components: (1) “at least one silicone/acrylate copolymer” and (2) “at least one nonionic polymer comprising at least one vinyl lactam unit chosen from polyvinylpyrrolidone/vinyl acetate/vinyl propionate terpolymers.” The composition can be used as a hair care product for “fixing” and “holding” hairstyles (Specification 2: 10-24). The polymers are “polymeric resins” which, when applied to hair, “form welds between the hairs” (Specification 1: 13-15) to fix and hold hairstyles. The polymers are also known as “fixing materials” (Specification 1: 14-15) or “film forming” polymers (Firstenberg, col. 2, ll. 28-29).

Both of the claimed polymer components were known in the art prior to the filing date of the instant application as useful in setting hair. Blankenburg teaches the silicone/acrylate copolymers (Answer 5-6). Firstenberg teaches the vinyl lactam terpolymers (Answer 6-7). The issue in this appeal is whether it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Blankenburg’s copolymer with Firstenberg’s vinyl lactam terpolymer in a single composition.

Obviousness requires a teaching that all elements of the claimed invention are found in the prior art and “a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007). “[R]ejections on

obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). *See KSR*, 127 S.Ct. at 1741, 82 USPQ2d at 1396.

The Examiner provides the following rationale for combining the two known polymer components:

(1) Blankenburg et al. and Firstenberg et al. both teach hair care fixative compositions in the form of sprays; (2) Firstenberg et al. teaches vinylpyrrolidone/vinyl acetate/vinyl propionate copolymers as film forming polymers useful for setting hair; (3) Blankenburg et al. teaches that vinyl lactam homo and copolymers are known in the art as synthetic polymers that have been used for almost 50 years to strengthen hairdos; (4) Blankenburg et al. teaches that other cosmetic agents can be added to his composition; and (5) Firstenberg et al. teaches that more than one hair setting polymer may be used in a hair setting composition.

(Answer 7.)

The Examiner’s reasoning boils down to this: when the prior art teaches that a hair setting composition can contain more than one fixing or film-forming polymer, it would have been obvious to a person of ordinary skill to combine two polymers which are taught in the prior art to be individually useful for the same purpose, i.e., hair treatment (Answer 7).

Appellant contends that “neither Blankenburg nor Firstenberg suggest the desirability of modifying their respective disclosures to further include the ingredient of the other, which the Examiner wishes to combine” (Br. 13). They point out that none of the 16 examples in Firstenberg describe a composition with more than one polymer (Br. 13).

In our opinion, the Examiner has the better argument. As established by the Examiner (Answer 7, 9), Firstenberg teaches that its “hairdressing” composition can comprise more than one hair styling polymer. For example, Firstenberg states: 1) “this [hair-styling] aerosol comprising at least one film-forming polymer” (Firstenberg, at col. 1, ll. 51-52); and 2) “the liquid concentrate containing the film-forming polymers(s) for setting hair” (Firstenberg, at col. 2, ll. 28-29).

Blankenburg also describes combinations of polymers in a composition for applying to hair. For instance, Blankenburg states that “the resultant copolymers – to achieve a good effect – often can be formulated only in combination with other polymers” (Blankenburg, at 2).

Thus, the scope and contents of the prior art provide evidence that a person of ordinary skill in the art was familiar with the concept of combining hair styling polymers and would have had the technical knowledge to do so.

Here, we find that the combined teachings of Blankenburg and Firstenberg establish that hair styling compositions comprised of more than one fixing polymer were known in the art. It is reasonable to infer from these teachings that the skilled worker would have recognized the advantages of this approach for improving a compositions’ hair styling properties (e.g., Blankenburg teaches that “the resultant copolymers – to achieve a good effect – often can be formulated only in combination with other polymers” (Blankenburg, at 2)). No explicit teaching is necessary to have led the skilled worker to the particular polymers recited in claim 1 because each were known in the prior art to be effective for “fixing” and

“holding” hair styles.⁴ As held by the U.S. Supreme Court, “‘a combination which unites old elements with no change in their respective functions’ . . . is likely to be obvious when it does no more than yield predictable results.” *KSR*, 127 S.Ct. at 1731, 82 USPQ2d at 1396. Appellant has combined known polymers for their known hair styling properties. There is no evidence in the record that the results achieved are anything more than what would be predicted from the individual properties of each polymer.

Appellant argues that Firstenberg does not list a specific example of a hair composition comprising more than one fixing polymer (Br. 13). However, a reference must be considered for all it teaches. *See W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1550-51, 220 USPQ 303, 311 (Fed. Cir. 1983); *In re Gurley*, 27 F.3d 551, 553, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994). The absence of examples from Firstenberg does not teach away from combining more than one polymer in a hair styling composition when Firstenberg explicitly teaches it as an option.

Appellant contends that Blankenburg “teaches away” from utilizing vinyl lactam polymers (Br. 14) – element (b) of claim 1. In its discussion of prior art uses of synthetic polymers for hairstyling, Blankenburg states that

⁴ Precise teachings directed to the specific subject matter of a claim are not required to reach a conclusion of obviousness. *KSR*, 127 S. Ct. at 1741, 82 USPQ2d at 1396. “[T]he teaching, motivation, or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references. . . . The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art.” *In re Kahn*, 441 F.3d 977, 987-988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006).

“[i]nitially, preference was given to vinyl lactam-homo and copolymers for practical use; later on, carboxylate-group-containing polymers gained increasing importance” (Blankenburg, at 1). Appellant asserts that this statement discourages the use of vinyl lactam polymers because they “are part of the art that . . . Blankenburg is seeking to avoid” (Br. 14).

We do not agree with Appellant that Blankenburg’s statement about the initial preference for vinyl lactam polymers, contrasted with the subsequent “importance” of carboxylate polymers, teaches away from using vinyl lactam polymers (Br. 14; Reply Br. 3-5).

Blankenburg expressly states that “[s]ynthetic polymers have been used successfully for almost 50 years to strengthen hairdos” (Blankenburg 1). It also states that the requirements of a hair fixing polymer [“intensive strengthening at high air humidity, elasticity, ability to wash out of the hair, and compatibility with the other formulation components”] are met by the prior art polymers (Blankenburg, at 1). In other words, Blankenburg teaches that the prior art polymers, which would include the specifically named vinyl lactams, are effective for styling hair.

Blankenburg acknowledges that the prior art polymers have drawbacks: “nevertheless, the grip of hairdos strengthened with these [prior art] polymers is increasingly felt as being unpleasantly dull and ‘unnatural’” (Blankenburg, at 1). “A known or obvious composition does not become patentable simply because it has been described as somewhat inferior to some other product for the same use.” *In re Gurley*, 27 F.3d 551, 552, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994). Simply because the vinyl lactams may have fallen out of favor, and may even be inferior to other available alternatives for certain purposes, would not have led the skilled worker to

outright reject them in combination with other hair styling polymers.⁵ The fact that the Blankenburg may endorse other products for hair styling does not eliminate vinyl lactams from the prior art.⁶ They would have still been recognized by the person of ordinary skill in the art as effective alternative polymers for fixing hair.

Appellant asserts

that the Examiner is now, in effect, turning the standard for finding *prima facie* obviousness on its head. The standard is not satisfied merely by stating that an artisan *would not be discouraged* from combining certain elements. Rather, the standard is for the Examiner to show that the references provide some *motivation* to result in a particular combination. In order to support a rejection under 35 U.S.C. § 103, “the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with *no knowledge of the claimed invention*, would [actively] select the elements from the cited prior art references for combination in the manner

⁵ A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *Gurley*, 27 F.3d at 552, 31 USPQ2d at 1131.

⁶ *See In re Beattie*, 974 F.2d 1309, 1312-13, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992) (“Moreover, Guilford’s endorsement of a dodecatonic twelve tone notation over the traditional twelve tone notation does not establish a teaching away from the older system such that Guilford cannot be combined with Eschemann. Guilford merely presents an alternative to a well-entrenched musical theory, which, of course, he considers better and urges as a replacement. The recommendation of a new musical notation system, however, does not require obliteration of another; coexistence of the teachings of Guilford and traditional musical notation for nearly a century bears this out.”)

claimed.” *In re Rouffet*, 149 F.3d at 1357, 47 U.S.P.Q.2d at 1458 (Fed. Cir. 1998) (emphasis added).

(Br. 15.)

We agree with Appellant that a reason must be provided for combining the prior art in the manner which is claimed. In fact, the Examiner did articulate a reason: the skilled worker – in view of the knowledge that combinations of polymers in hairstyling compositions were known in the art – would have been prompted to have combined the known effective hair fixing polymers for their expected benefit in improving the properties of the hair styling composition of either Blankenburg or Firstenberg, alone. In our opinion, the evidence that led the Examiner to this conclusion is sufficient to shift the burden to Appellant to provide evidence to the contrary. Appellant had the opportunity to rebut it. Appellant contends that Blankenburg teaches away from the combination, but as discussed above, the Examiner did not find that Blankenburg’s disclosure would have discouraged the person of ordinary skill from having combined Firstenberg and Blankenburg. In sum, the Examiner did not turn the standard of obviousness on its head; the motivation to combine the references and the “teaching away” were each considered in turn.

For the foregoing reasons, we conclude that the Examiner has provided sufficient evidence to establish the unpatentability of the subject matter of claim 1. On the record before, we do not find that adequate evidence has been put forth by Appellant to rebut the Examiner’s case. The rejection of claim 1 is affirmed. Claims 2-33, 38-82, and 87-102 fall with claim 1 because separate reasons for their patentability were not presented.

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TIME PERIOD

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv)(2006).

AFFIRMED

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